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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

MI22-2488

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Application Number

10/799,244

Filed

MARCH 12, 2004

First Named Inventor

WARREN M. FARNWORTH ET AL.

Art Unit

21167

Examiner

TSE W. CHEN

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐

applicant/inventor.

☐

assignee of record of the entire interest.

See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)☒

attorney or agent of record.

Registration number 33,560☐

attorney or agent acting under 37 CFR 1.34.

Registration number if acting under 37 CFR 1.34 _____

Signature

DEEPAK MALHOTRA

Typed or printed name

(509) 624-4276

Telephone number

Oct. 19, 2006

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.
Submit multiple forms if more than one signature is required, see below*.

☒*Total of One (1) forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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EV832833095

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application Serial No. 10/799,244
Confirmation No. 8217
Filing Date March 12, 2004
Inventor Warren M. Farnworth et al.
Assignee Micron Technology, Inc.
Group Art Unit 2116
Examiner Tse W. Chen
Attorney's Docket No. MI22-2488
Customer No. 021567
Title: Computer Including Installable and Removable Cards, Optical Interconnect
Between Cards, and Method of Assembling a Computer

PRE-APPEAL BRIEF REQUEST FOR REVIEW

To: Mail Stop AF
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P.O. Box 1450
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From: Deepak Malhotra (Tel. 509-624-4276; Fax 509-838-3424)
Wells St. John P.S.
601 W. First Avenue, Suite 1300
Spokane, WA 99201-3828

Sir:

Concurrent with the filing of a Notice of Appeal in connection with the above-identified application, the undersigned requests review of the Final Office Action dated July 21, 2006 (hereinafter the "Office Action") of the following issues.

Claims 1-5, and 24-28 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,863,232 to Kwa, in view of U.S. Patent No. 5,631,988 to Swirhun et al. and U.S. Patent No. 4,704,599 to Kimmel et al.

Claim 1 recites a system comprising a housing; a circuit board supported in the housing; a plurality of slot connectors supported on the circuit board; a

first card in one of the slot connectors; a first circuit component mounted on the first card, the slot connector coupling the first circuit component to a power supply; a second card in another one of the slot connectors; a second circuit component mounted on the second card; and an optical interconnect coupling the first card to the second card, the first circuit component being configured to communicate with the second circuit component via the optical interconnect, the optical interconnect being entirely supported by the first and second cards, whereby the optical interconnect does not pass through the slot connectors so that interference that could otherwise be caused by signals to and from the first circuit component is impeded.

The Kwa reference fails to disclose an optical interconnect being entirely supported by the first and second cards. The Office Action states that Swirhun et al. discloses, in Fig. 4a, an optical interconnect coupling a first card 400 to a second card 410, the first component being configured to communicate with the second circuit component via the optical interconnect, the optical interconnect being entirely supported by the first and second cards. The Examiner is taking the position that it would have been obvious to modify Kwa to include the teachings of Swirhun et al. and Kimmel et al. The stated motivation is that this would be a way to alleviate misalignment problems due to thermal strain.

If Kwa was modified with the arrangement of Fig. 4a of Swirhun et al., it would not be possible to use the slot connector to couple the first circuit component to a power supply. The slot connector of Fig. 4a of Swirhun et al. is not usable when the optical interconnect is being used.

Further, Kwa teaches away from any such combination. The main purpose of Kwa is to avoid the risk of operators forgetting to mate optical connector parts when inserting a circuit board or of forgetting to unmate optical connector parts when removing a circuit board by providing card guides 112. Therefore, Kwa would not have any system other than one that provides for automatic alignment of optical connector parts. Kwa would only have a system where the optical interconnects are not supported by the first and second cards. Otherwise there is no point to Kwa's invention.

Kwa states in Col. 1, lines 45 to 60 (in discussing problems with the prior art) that:

Most optical connector parts are provided with screw or bayonet type fittings. Thus, tee optical connector parts must be rotatably mated after the circuit boards are inserted and rotatably unmated before the circuit boards are withdrawn. The optical connector parts must be mounted where they are manually accessible when the circuit boards are mounted in the frame, for example at the front of the frame. This is not always convenient or possible, particularly when the frame carries a large number of densely packed circuit boards. Moreover, operators may forget to rotatably mate the optical connector parts when inserting a circuit board, leaving the circuit board optically disconnected, or may forget to rotatably unmate the optical connector parts when removing a circuit board, physically damaging the circuit board, connector parts or optical fibers.

Kwa then goes on to state in Col. 2, lines 4 to 16 (in discussing problems with the prior art) that:

Unfortunately, in the known board edge optical connector arrangements the circuit board mounted optical connector parts are mounted at leading edges of the circuit boards. These leading edges are already congested with board edge electrical contacts. Moreover, in the known board edge optical connector arrangements the frame mounted optical connector parts are mounted at the back

plane which is already congested with electrical board edge connectors and electrical conductors.

The present invention provides an optical connector which can be used to avoid some or all of the problems described above.

Kwa solves the problem of risk of operators forgetting to mate optical connector parts when inserting a circuit board or of forgetting to unmate optical connector parts when removing a circuit board by providing card guides 112 such that (see Col. 4, lines 8 to 44) sliding insertion of the circuit boards 140 into the card guides 112 urges the board edge electrical contacts 142 into the board edge electrical connectors 116 to electrically interconnect the circuit boards, and align the optical connector parts 120, 150 in a direction transverse to the direction of insertion.

Thus, Kwa itself teaches away from a system that does not provide for automatic alignment of optical connector parts. The main purpose of Kwa is to avoid the risk of operators forgetting to mate optical connector parts when inserting a circuit board or of forgetting to unmate optical connector parts when removing a circuit board by providing card guides 112. Therefore, Kwa teaches away from a combination with Swirhun et al. and Kimmel et al. The combination of references is improper and the rejection should be withdrawn.

In addition, the problem of alleviating misalignment problems due to thermal strain would appear to be solved by Swirhun et al. alone, without any need to look to Kwa's invention or Kimmel et al. Further, insufficient evidence has been presented to support motivation to combine the teachings of Kwa with Swirhun et al. and Kimmel.


Therefore, the combination of references is improper and claims 1-5 are allowable.

The rejection of claims 6-7 as being unpatentable over Kwa, Swirhun et al., Kimmel et al. and Gillingham; the rejection of claims 14-16, 18-21, 23, 31-33 and 35-37 as being unpatentable over Kwa in view of Kimmel et al. and Gillingham; the rejection of claims 17, 22, 34 and 38 as being unpatentable over Kimmel et al., Gillingham, Kwa, and Freedman; the rejection of claims 24-28 as being unpatentable over Kwa, in view of Swirhun et al.; and the rejection of claims 29-30 as being unpatentable over Kwa, Swirhun et al., Kimmel et al., and Gillingham are all improper because Kwa teaches away from any such combinations.

In view of the foregoing, reversal of the rejections of claims 1-7 and 14-38 is requested.

Respectfully submitted,

Dated: Oct. 19, 2006

By: 
Deepak Malhotra, Reg. No. 33,560
Wells St. John P.S.

Customer No. 021567